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#30NM PATENT
Attorney Docket No. 2356.0074

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Agnes LABIGNE et al.) Group Art Unit: 1645
Serial No.: 08/211,312) Examiner: N. Minnifield
Filed: July 1, 1994) NOTICE OF ALLOWANCE
For: GENES OF HELICOBACTER PYLORI) DATED: 10/27/98
NECESSARY FOR THE REGULATION)
AND MATURATION OF UREASE AND)
THEIR USE (AS AMENDED)) Batch No.: K86

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

SUBMISSION OF FORMAL DRAWINGS

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Subject to the approval of the Examiner, please replace the informal drawings with the formal drawings Fig. 1 - 13 (20 sheets) filed herewith. If the formal drawings for any reason are not in full compliance with the pertinent statutes and regulations, please so advise the undersigned. If any fees are necessary for the submission of these formal drawings, please charge our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: Leslie A. McDonell
Leslie A. McDonell
Reg. No. 34,872

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, D. C. 20005
202-408-4000

Dated: January 5, 1999

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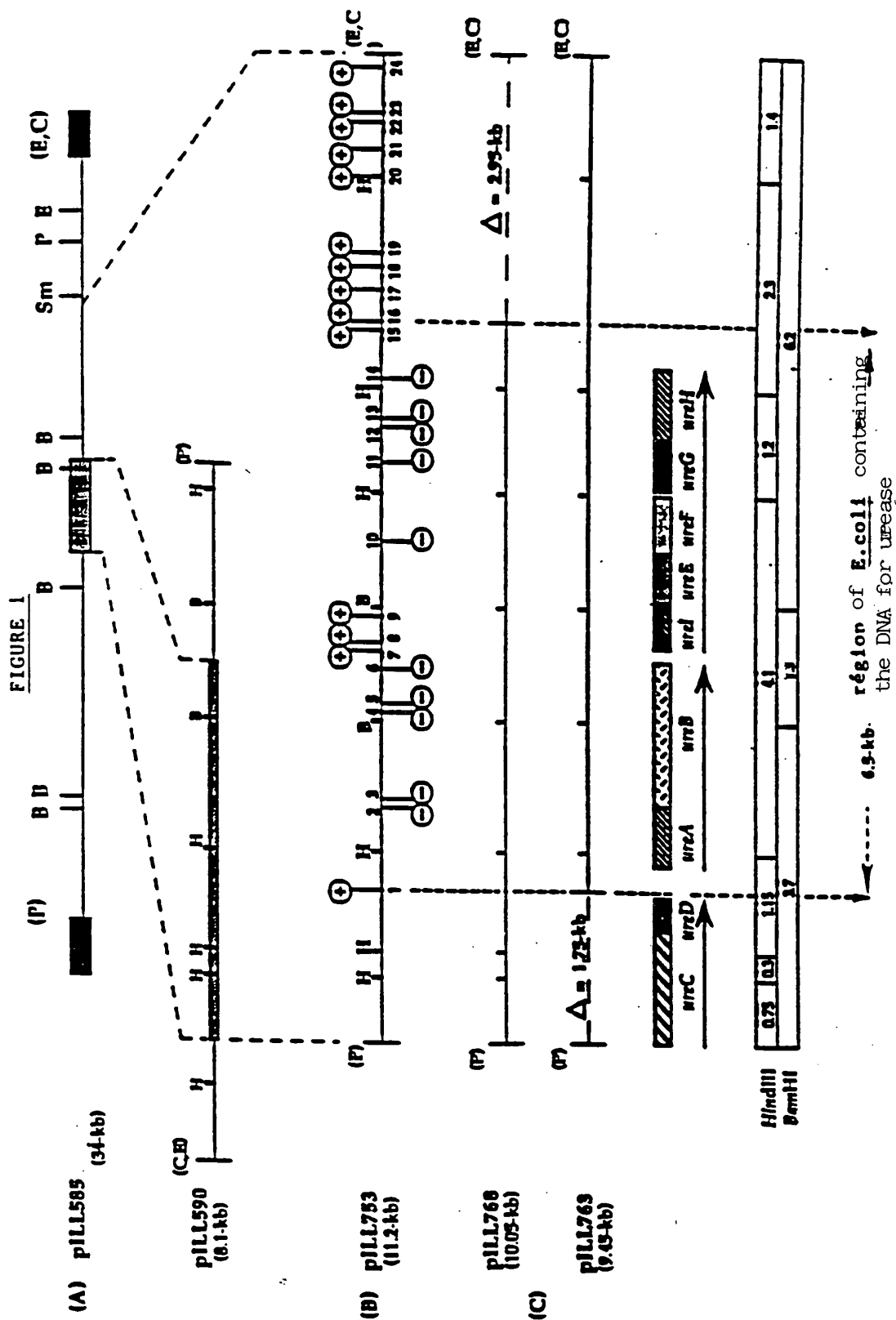
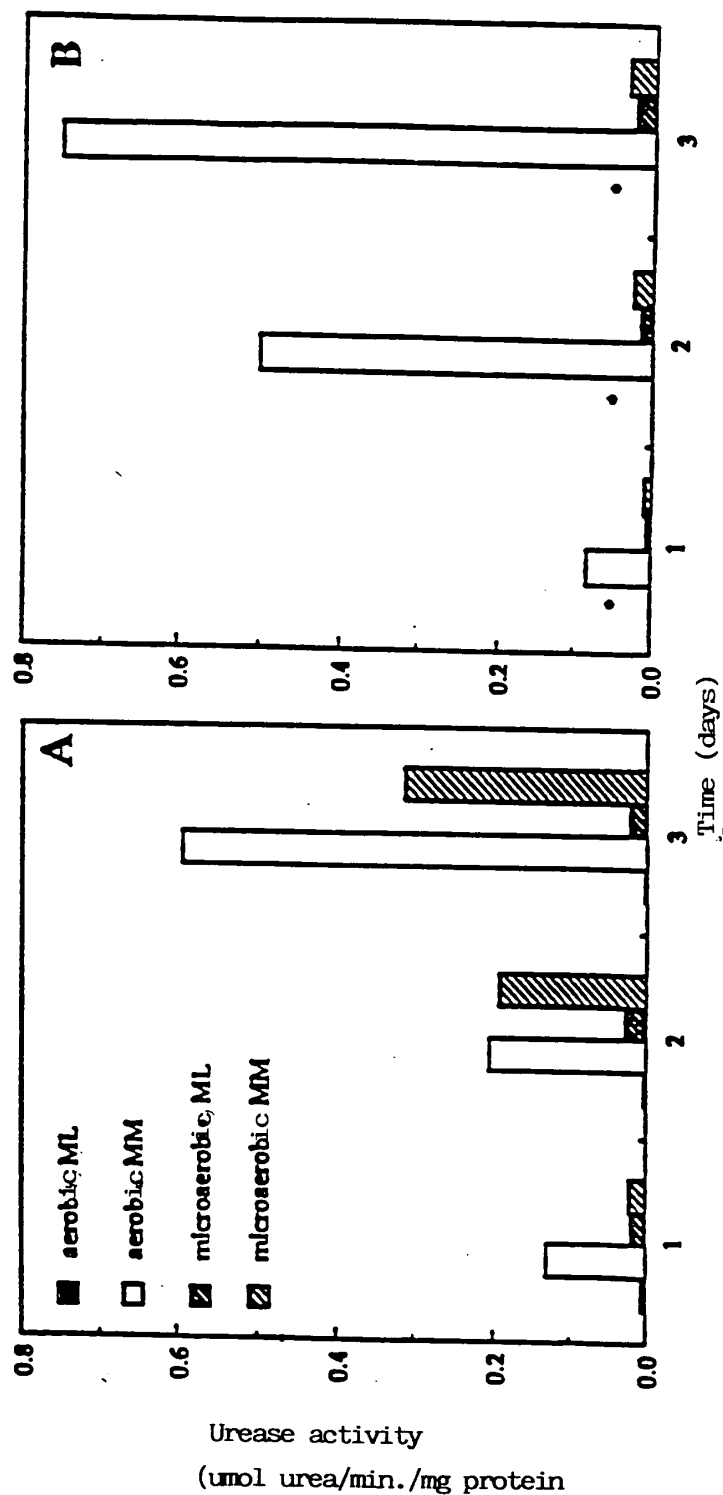


FIGURE 2



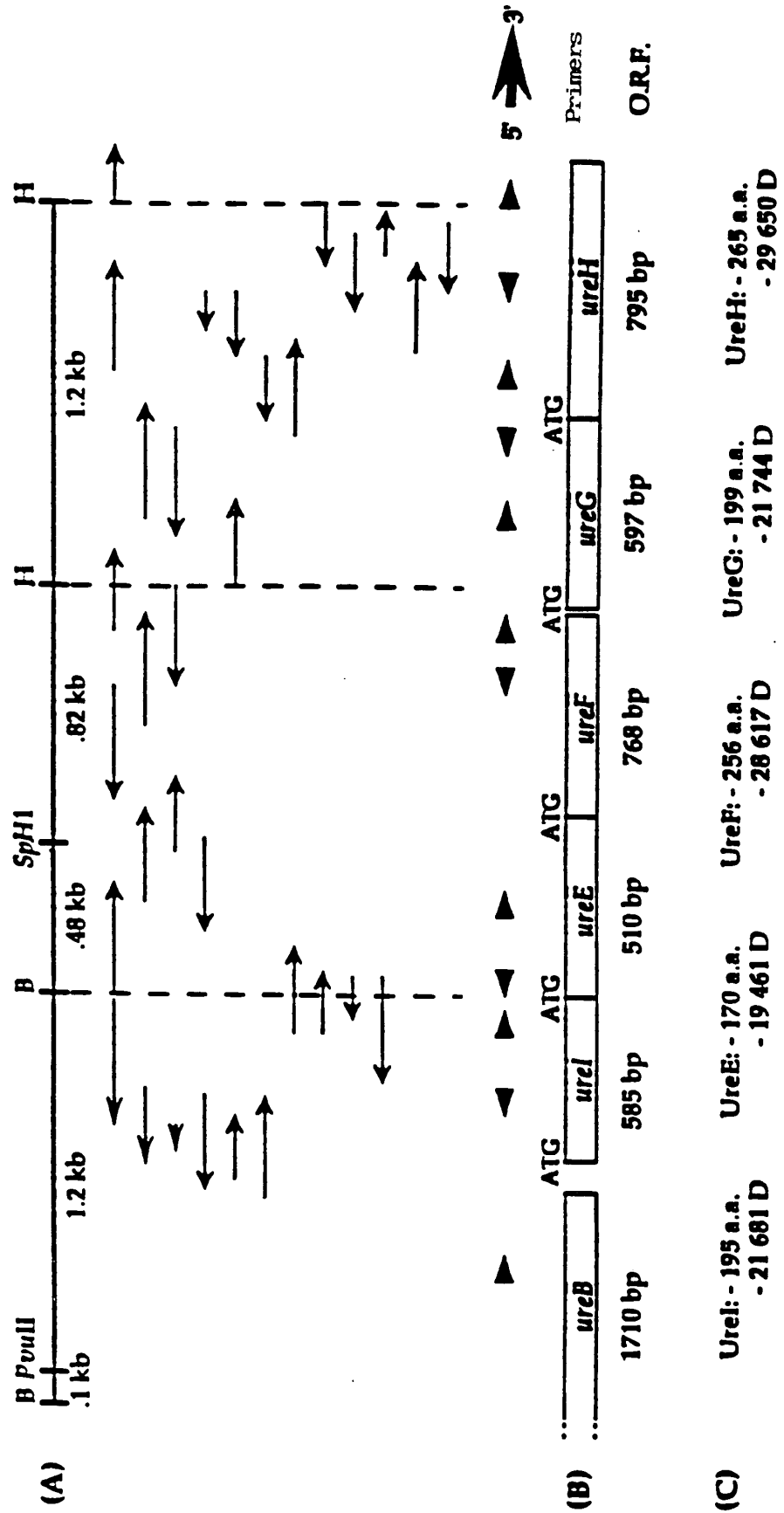


FIGURE 3

08/211 312

FIGURE 4

1 A CTC TTT AGC ATT TTC TAG GA TTT TTT AGG AGC AAC GCT CTT AGA TCC TTA GTT TTT AGC
 --leu phe ser ile phe AMB
 61 TCT CTG ATT TTT TGT TTA TCA AAA AAT TGG GGG CTT TTT TTG TTT TTA TTT TTT GTC AAT
 91
 121 TTA CTA TTT TTC TTT ATG ATT AGC TCA AGC AAC AAA AGT TAT TCG TAA GGT GCG TTT GTT
 151
 181 GTA AAA ATT TTT GTT TGG AAG GAA AAG GCA ATG CTA GGA CTT GTA TTG TTA TAT GTT GGG
 211 Met leu gly leu val leu leu tyr val gly
 uref
 241 ATT GTT TTA ATC AGC AAT GGG ATT TGC GGG TTA ACC AAA GTC GAT CCT AAA AGC ACT GCG
 ile val leu ile ser asn gly ile cys gly leu thr lys val asp pro lys ser thr ala
 301 GTG ATG AAC TTT TTT GTG GGT GGG CTC TCC ATT ATT TGT AAT GTG GTT GTC ATC ACT TAT
 val met asn phe phe val gly gly leu nor ile ile cys asn val val ile thr tyr
 361 TCC GCT CTC AAC CCT ACA GCC CCT GTA GAA GGT GCT GAA GAT ATT GCT CAA GTA TCA CAC
 ser ala leu asn pro thr ala pro val glu gly ala glu asp ile ala gln val ser his
 421 CAT TTG ACT AAT TTC TAT GGG CCA GCG ACT GGG TTA TTG TTT GGT TTC ACC TAC TTG TAT
 his leu thr asn phe tyr gly pro ala thr gly leu leu phe gly phe thr tyr leu tyr

08/21/312

FIGURE 4 (cont.)

481 GCG GCT ATC AAC CAC ACT TTT GGT TTG GAT TGG AGG CCC TAC TCT TGG TAT AGC TTA TTC
 ala ala ile asn his thr phe gly leu asp trp arg pro tyr ser trp tyr ser leu phe
 511
 541 GTA GCG ATC AAC ACG ATT CCT GCT GCG ATT TTA TCC CAC TAT AGC GAT ATG CTT GAT GAC
 val ala ile asn thr ile pro ala ala ile leu ser his tyr ser asp met leu asp asp
 571
 601 CAC AAA GTG TTA GGC ATC ACT GAA GGC GAT TGG TGG GCG ATC ATT TGG TTG GCT TGG GGT
 his lys val leu gly ile thr glu gly asp trp trp ala ile ile trp leu ala trp gly
 631
 661 GTT TTG TGG CTT ACC GCT TTC ATT GAA AAC ATC TTTG AAA ATC CCT TTA GGG AAA TTC ACT
 val leu trp leu thr ala phe ile glu asn ile leu lys ile pro leu gly lys phe thr
 691
 721 CCA TGG CTT GCT ATC ATT GAG GGC ATT TTA ACC GCT TGG ATC CCT GCT TGG TTA CTC TTT
 pro trp leu ala ile ile glu gly ile leu thr ala trp ile pro ala trp leu leu phe
 751
 781 ATC CAA CAC TGG GTG TGA GAT CAT
 ile gln his trp val opa
 811
 812 TCC AAC ACT GGG TGT GAG ATG ATC ATA GAG CGT TTA ATA GGC AAT CTA AGG GAT TTA AAC
 uro Met ile ile glu arg leu ile gly asn leu arg asp leu asn

FIGURE 4 (cont.)

842	CCC TTG GAT TTC AGC GTG GAT TAT GTG GAT TTG GAA TGG TTT GAA ACG AGG AAA AAA ATC	871	pro leu asp phe ser val asp tyr val asp leu glu trp phe glu thr arg lys lys ile
902	GCT CGC TTT AAA ACC AGG CAA GGC AAA GAC ATA GCC GTA CGC CTT AAA GAC GCT CCC AAG	932	ala arg phe lys thr arg gln gly lys asp ile ala val arg leu lys asp ala pro lys
962	TTG GGT TTC TCT CAA GGA GAT ATT TTA TTT AAA GAA GAG AAG GAA ATT ATC GCC GTT AAT	992	leu gly phe ser gln gly asp ile leu phe lys lys glu lys glu ile ala val asn
1022	ATC TTG GAT TCT GAA GTC ATT CAC ATC CAA GCT AAG AGC GTG GCA GAA GTA GCG AAA ATA	1052	ile leu asp ser glu val ile his ile gln ala lys ser val ala glu val ala lys ile
1082	TGC TAT GAA ATA GGA AAC CGC CAT GCG GCT TTA TAC TAT GGC GAG TCT CAA TTT GAA TTT	1112	cys tyr glu ile gly asn arg his ala ala leu tyr tyr gly glu ser gln phe glu phe
1142	AAA ACA CCA TTT GAA AAG CCC ACG CTA GCG TTA CTA GAA AAG CTA GGG GTT CAA AAT CGT	1172	lys thr pro phe glu lys pro thr leu ala leu leu glu lys leu gly val gln asn arg
1202	GTT TTA AGT TCA AAA TTG GAT TCC AAA GAA CGC TTA ACC GTG AGC ATG CCC CAT AGT GAG	1232	val leu ser ser lys leu asp ser lys glu arg leu thr val ser met pro his ser glu

52

SUBSTITUTE SHEET

08/21/312

FIGURE 4 (cont.)

1681
 ATG GAA TTG CGA TTA GCC AAT CAA AAG CTA GGC AAT CGT TTC ATT AAA ACC TTA CAA GCC
 met glu leu arg leu ala asn glu lys leu gly asn arg phe ile lys thr leu gln ala

1741
 ATG AAC GAA TTA GAC ATT GGC GCA TTT TTT AAC GCT TAC GCT CAA CAA ACC GAA GAC CCC
 met asn glu leu asp ile gly ala phe phe asn ala tyr ala gln thr glu asp pro

1801
 ACC CAT GCC ACT AGC TAT GGC GTT TTT GCG GCG AGT TTG GGG ATT GAA TTG AAA AAG GCT
 thr his ala thr ser tyr gly val phe ala ala ser leu gly ile glu leu lys lys ala

1861
 TTA AGG CAT TAT CTT TAT GCA CAA ACT TCT AAC ATG GTA ATT AAC TGC GTT AAA AGC GTC
 leu arg his tyr leu tyr ala gln thr ser asn met val ile asn cys val lys ser val

1921
 CCA CTA TCT CAA AAC GAT GGC CAA AAA ATC TTA TTG AGC TTG CAA AGC CCT TTT AAC CAG
 pro leu ser gln asn asp gly gln lys ile leu leu ser leu gln ser pro phe asn gln

1981
 CTC ATA GAA AAA ACC CTA GAA CTA GAC GAA AGC CAC TTG TGC GCG GCA AGC GTT CAA AAC
 leu ile glu lys thr leu glu thr leu asp glu ser his leu cys ala ala ser val gln asn

2041
 GAC ATT AAG GCG ATG CAG CAT GAG AGT TTA TAC TCG CGC CTT TAT ATG TCT TGA ATT TTA
 asp ile lys ala met gln his glu ser leu tyr ser arg leu tyr met ser opa

08/21/312

FIGURE 4 (cont.)

2102	SD	2132
TCT CAA ATT GAA AGG AAT TTT ATG GTA AAA ATT GGA GTT TGT GGT CCT GTA GGA AGC GGT		
<u>ureG</u>		
2162	Met val lys ile gly val cys gly pro val gly ser gly	
AAA ACC GCC TTG ATT GAA GCT TTA ACG CGC CAC ATG TCA AAA GAT TAT GAC ATG GCG GTC		2192
<u>lys thr ala leu ile glu ala leu thr arg his met ser lys asp tyr asp met ala val</u>		
2222		2252
ATC ACT AAT GAT ATT TAC ACG AAA GAA GAC GAA TTT ATG TGT AAA AAT TCG GTG ATG		
<u>ile thr asn asp ile tyr thr lys glu asp ala glu phe met cys lys asn ser val met</u>		
2282		2312
CCA CGA GAG AGG ATC ATT GGC GTA GAA ACA GGA GGC TGT CCG CAC ACG GCT ATT AGA GAA		
<u>pro arg glu arg ile ile gly val glu thr gly gly cys pro his thr ala ile arg glu</u>		
2342		2372
GAC GCT TCT ATG AAT TTA GAA GCC GTA GAA GAA ATG CAT GGC CGT TTC CCT AAT TTG GAA		
<u>asp ala ser met asn leu glu ala val glu glu met his gly arg phe pro asn leu glu</u>		
2402		2432
TTG CTT TTG ATT GAA AGC GGA GGC AGT AAC CTT TCA GCG ACT TTC AAC CCA GAG CTA GCG		
<u>leu leu leu ile glu ser gly gly ser asn leu ser ala thr phe asn pro glu leu ala</u>		
2462		2492
GAC TTT ACG ATC TTT GTG ATT GAT GTG GCT GAG GGC GAT AAA ATC CCC AGA AAA GGC GGG		
<u>asp phe thr ile phe val ile asp val ala glu gly asp lys ile pro arg lys gly gly</u>		

08/211 312

FIGURE 4 (cont.)

2522	CCA GGA ATC ACG CGT TCA GAC TTG CTT GTC ATC AAT AAG ATT GAT TTA GCC CCC TAT GTG	2552	pro gly ile thr arg ser asp leu leu val ile asn lys ile asp leu ala pro tyr val
2582	GGA GCC GAC TTG AAA GTC ATG GAA AGG GAT TCT AAA AAA ATC GCG GCG AAA AGC CCT TTA	2612	gly ala asp leu lys val met glu arg asp ser lys lys ile ala ala lys ser pro leu
2642	TTT TTA CCG AAT ATC CGC GCT AAA GAA GAT TTA GAC GAT GTG ATC GCT TGG ATC AAG CGC	2672	phe leu pro asn ile arg ala lys glu gly leu asp asp val ile ala trp ile lys arg
2702	AAC GCT TTA TTG GAA GAT TGA TGA ACA CTT		asn ala leu leu glu asp OPA
2701	CAG CGC TTT ATT <u>GGA AGA</u> TTG ATG AAC ACT TAC GCT CAA GAA TCC AAG CTC AGG TTA AAA	2731	ureH Met asn thr tyr ala gln glu ser lys leu arg leu lys
2761	ACC AAA ATA GGG GCT GAC GGG CGG TGC GTG ATT GAA GAC AAT TTT TTC ACG CCC CCC TTT	2791	thr lys ile gly ala asp gly arg cys val ile glu asp asn phe phe thr pro phe
2821	AAG CTC ATG GCG CCC TTT TAC CCT AAA GAC GAT TTA GCG GAA ATC ATG CTT TTA GCG GTA	2851	lys leu met ala pro phe tyr pro lys asp asp leu ala glu ile met leu leu ala val

Figure 4 (cont.)

2881
AGC CCT GGC TTA ATG AAA GGC GAT GCA CAA GAT GTG CAA TTG AAC ATC GGT CCA AAT TGC
ser pro gly leu met lys gly asp ala gln asp val gln leu asn ile gly pro asn cys

2941
AAG TTA AGG ATC ACT TCG CAA TCC TTT GAA AAA ATC CAT AAC ACT GAA GAC GGG TTT GCT
lys leu arg ile thr ser gln ser phe glu lys ile his asn thr glu asp gly phe ala

3031
AGC AGA GAC ATG CAT ATC GTT GTG GGG GAA AAC GCT TTT TTA GAC TTC GCG CCC TTC CCG
ser arg asp met his ile val val gly glu asn ala phe leu asp phe ala pro phe pro

3091
TTA ATC CCC TTT GAA AAC GCG CAT TTT AAG GGC AAT ACC ACG ATT TCT TTG CCG TCT AGC
leu ile pro phe glu asn ala his phe lys gly asn thr thr ile ser leu arg ser ser

3151
TCC CAA TTG CTC TAT AGT GAA ATC ATT GTC GCA GGG CGA GTG GCG CCG AAT GAG TTG TTT
ser gln leu leu tyr ser glu ile ile val ala gly arg val ala arg asn glu leu phe

3211
AAA TTC AAC CGC TTG CAC ACC AAA ATC TCT ATT TTA CAA GAT GAG AAA CCC ATC TAT TAT
lys phe asn arg leu his thr lys ile ser ile leu gln asp glu lys pro ile tyr tyr

3271
GAC AAC ACG ATT TTA GAT CCC AAA ACC ACC GAC TTA AAT AAC ATG TGC ATG TTT GAT GGC
asp asn thr ile leu asp pro lys thr thr thr asp leu asn met cys met phe asp gly

FIGURE 4 (cont.)

3301 TAT ACG CAT TAT TTG AAT TTG GTG CTG GTC AAT TGC CCC ATA GAG CTG TCT GGC GTG CGA
 tyr thr his tyr leu asn leu val leu val leu val asp gly ala val ser glu ile ala ser ser his
 3361 GGA TTG ATT GAA GAG AGC GAA GGA GTG GAT GGA GCC GTG AGT GAA ATC GCT AGT TCT CAT
 gly leu ile glu glu ser glu glu gly val asp gly ala val ser glu ile ala ser ser his
 3421 TTA TGC CTG AAA GCT TTA GCG AAA GGC TCA GAA CCC TTG TTG CAT TTA AGA GAA AAA ATC
 leu cys leu lys ala leu ala lys gly ser glu pro leu leu his leu arg glu lys ile
 3481 GCT CGC TTT ATC ACG CAA ACG ATT ACG CCA AAG GTT TAA AAA ACA CTT TAA AAA AGA TTA
 ala arg phe ile thr gln thr ile thr pro lys val och
 3541 TAC CCT TTA GTC TTT TTT AA

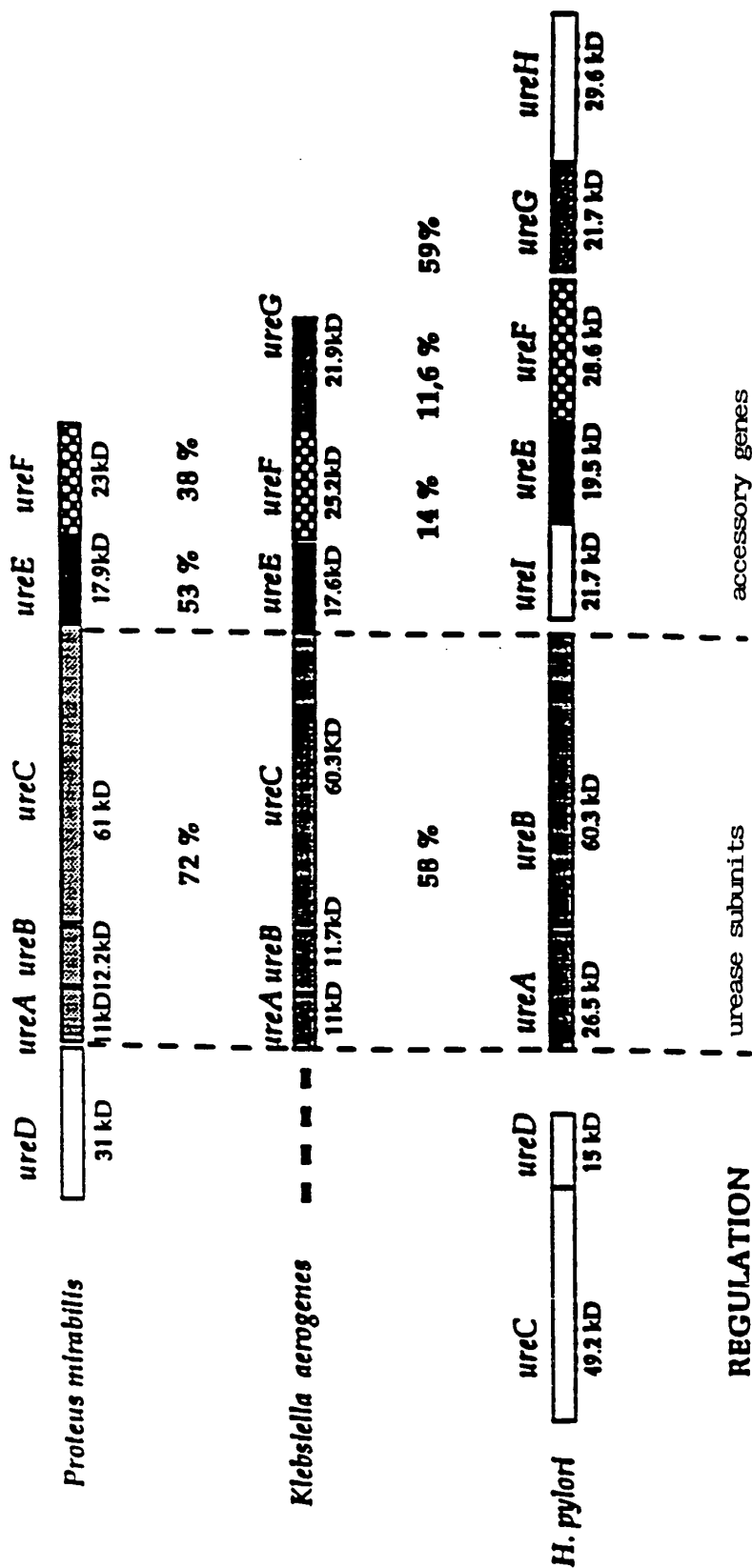


FIGURE 5

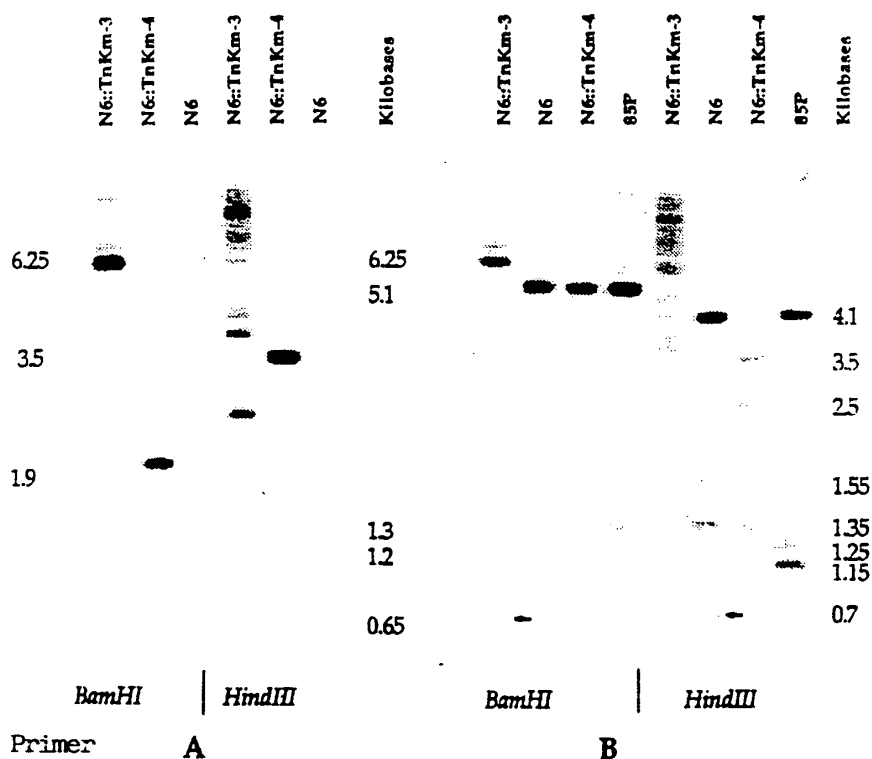


FIG. 6

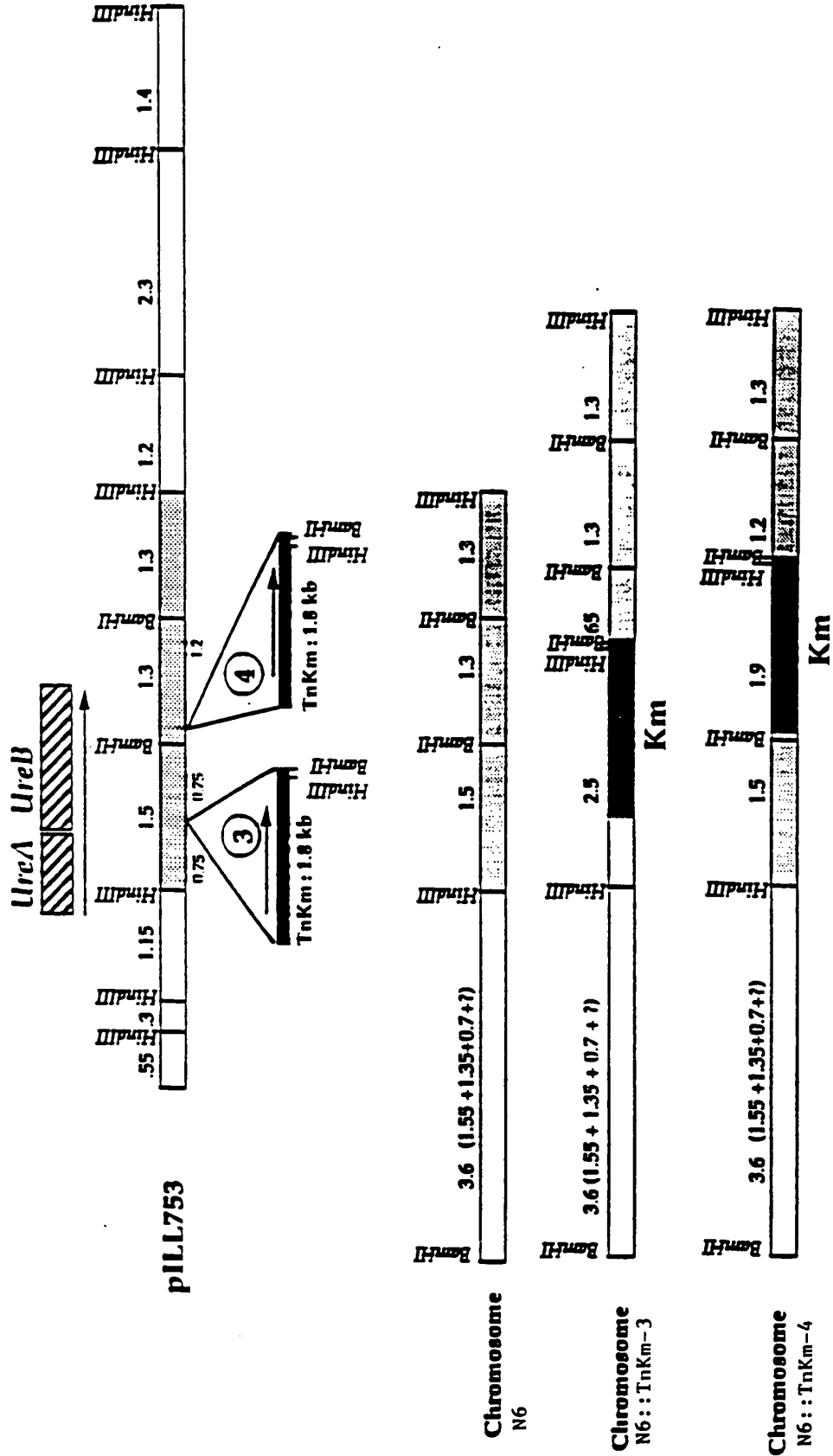


FIGURE 7

WO 93/07273

08/211312
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16/20

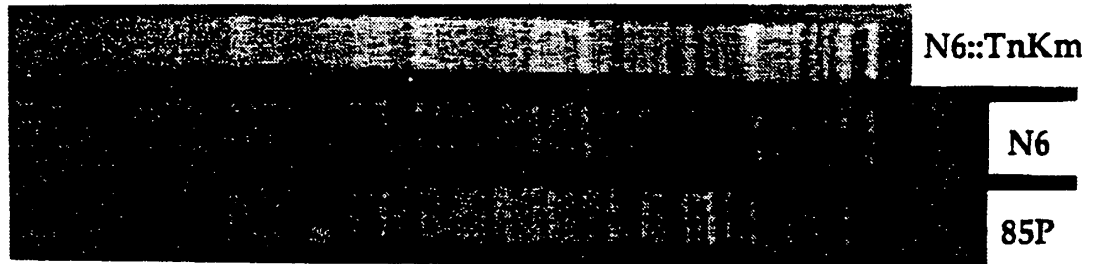


FIGURE 8

08/211312
PCT/FR92/00921

FIGURE 9
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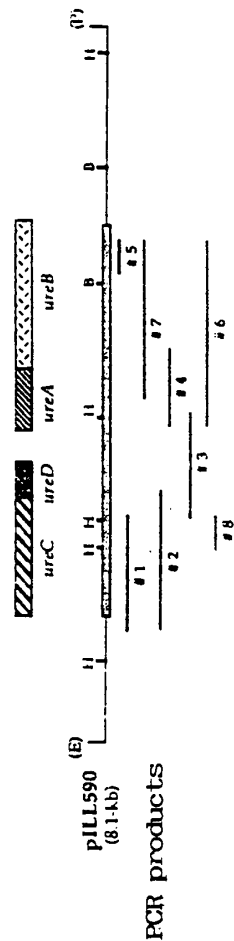
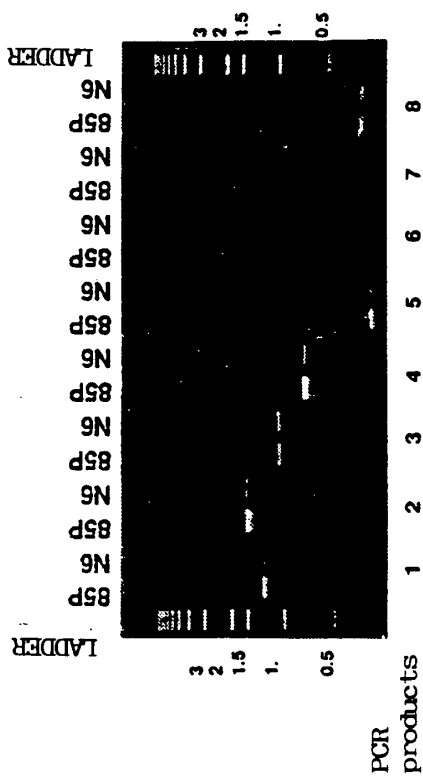


FIGURE 10

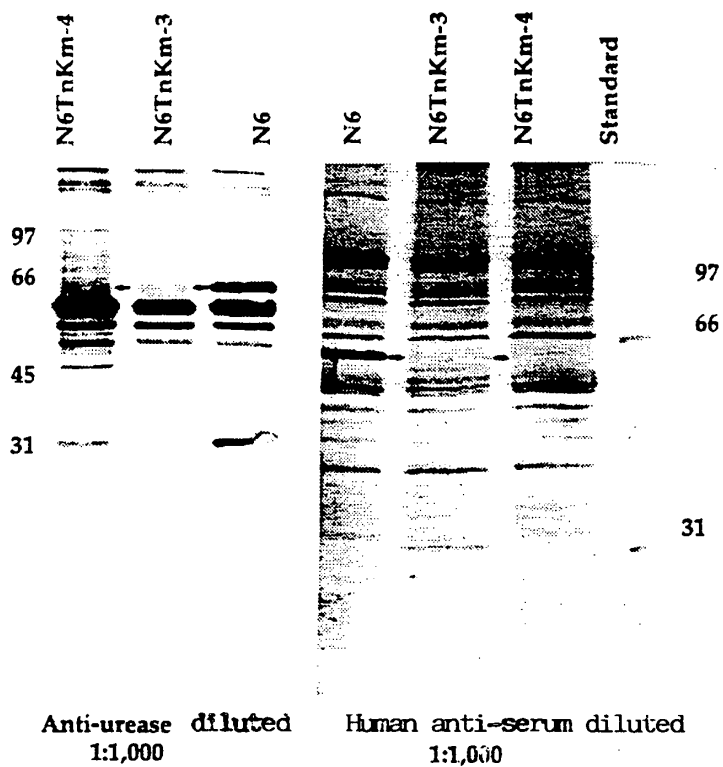


FIGURE 11

FIGURE 12

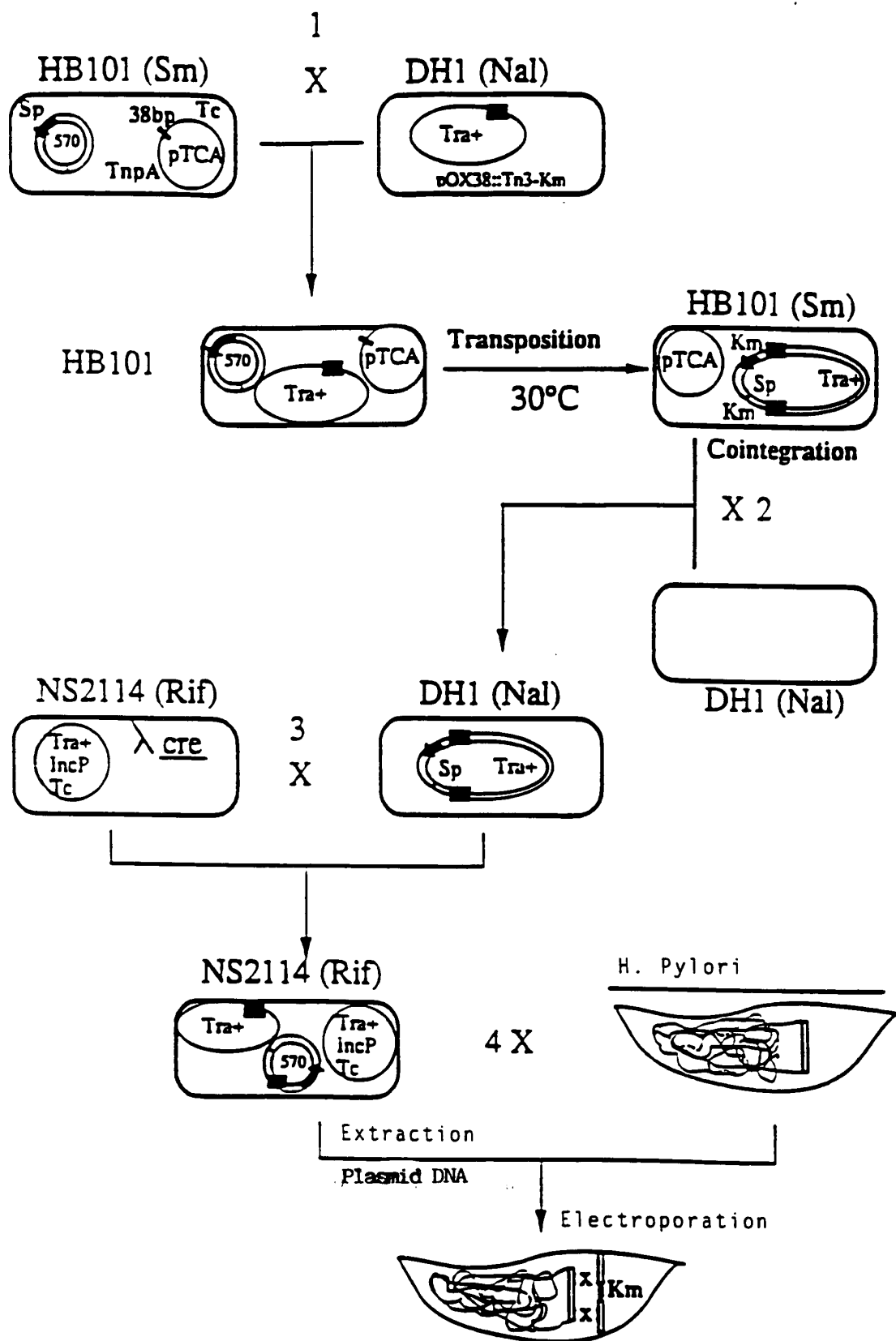


FIGURE 13

